

ANTENNA STRUCTURE AND COMMUNICATION APPARATUS
INCLUDING THE SAME

ABSTRACT

In an antenna structure (1) including a feeding radiation electrode (2) and a non-feeding radiation electrode (3) that are electromagnetically coupled to each other, due to formation of a main slit (4), the feeding radiation electrode (2) includes a U-turn portion (T) in the middle of a path circumventing the main slit (4) from a feeding end (Q) to an open end (K). A sub-slit (10) for forming an open stub (12) that is connected to the U-turn portion (T) and that provides the U-turn portion (T) with electrostatic capacitance is formed in the feeding radiation electrode (2). By changing a value of the electrostatic capacitance to be provided from the open stub (12) to the U-turn portion (T) of the feeding radiation electrode (2), variable control of a higher-order resonant frequency F2 of the feeding radiation electrode 2 can be achieved while suppressing fluctuations in a resonant state (for example, a fundamental resonant frequency F1 and a Q-value) of a fundamental resonant frequency band of the feeding radiation electrode (2), an electromagnetic coupling state between the feeding radiation electrode (2) and the non-feeding radiation electrode (3), and an impedance matching state.